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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,220	08/20/2001	Mitko G. Mitev	10012237-1	6401

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HEWLETT-PACKARD COMPANY
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EXAMINER

KIM, CHONG R

ART UNIT PAPER NUMBER

2623

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,220

Applicant(s)

MITEV ET AL.

Examiner

Charles Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,9,11-13,16-20,22-26,30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,9,11-13,16-20,22-26,30 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment and Arguments

1. Applicant's amendment filed on August 27, 2004 has been entered and made of record.
2. In view of applicant's amendment, the objection to the specification is withdrawn.
3. Applicant's arguments, see pages 6-9, filed August 27, 2004, with respect to the rejection(s) of claim(s) 1-5, 7-13, 15-19, 21, 23-29 under 35 U.S.C. 102, and the rejection of claims 20, 22 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Brownlee and Holehan.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-5, 7, 9, 11-13, 16-20, 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Brownlee, U.S. Patent No. 6,282,303 ("Brownlee") and Holehan, U.S. Patent No. 6,043,809 ("Holehan").

Referring to claim 1, Brownlee discloses a user interface (1120) for use with a computer, comprising:

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- a. an at least partially transparent roller (1110) [col. 4 line 66-col. 5, line 25 and figure 11];
- b. a sensor system, associated with the transparent roller, operable in a first mode to sense the image of a fingerprint and operable in a second mode to sense the rotational motion of the roller (col. 4, lines 15-col. 5, line 25).

Brownlee does not explicitly disclose a touch pad adjacent to the roller. Note that the transparent roller in Brownlee's system is implemented on the lower portion of a keyboard (figure 11). The Examiner notes that touch pads located at the lower portion of a keyboard were exceedingly well known in the art. For example, Holehan discloses a touch pad (236) that is implemented on the lower portion of a keyboard (figure 2), and is used for scrolling purpose (col. 5, lines 12-42).

Brownlee and Holehan are combinable because they are both concerned with user interface systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the keyboard of Brownlee so that it includes the touch pad (scroll bar) of Holehan at the lower portion of the keyboard. The suggestion/motivation for doing so would have been to eliminate the difficulties a user encounters when using a pointing device to reposition the cursor within a document while concurrently using the pointing device to scroll up and down and right and left within the document (Holehan, col. 1, line 45-col. 2, line 19). Therefore, it would have been obvious to combine Brownlee with Holehan to obtain the invention as specified in claim 1. Note that the combination of Brownlee and Holehan provide a user interface (keyboard) that includes the transparent roller (1110 in figure 11) of Brownlee adjacent to the touch pad (236 in figure 2) of Holehan.

Referring to claim 3, Brownlee discloses that the user interface further comprises a (keyboard) button (figure 11).

Referring to claim 4, Brownlee discloses that the user interface further comprises a pair of (keyboard) buttons located on opposite sides of the roller (figure 11).

Referring to claim 5, Brownlee discloses that the user interface further comprises a plurality of keys together defining a keyboard (figure 11). Brownlee does not explicitly disclose that the roller is located between the touch pad and the keyboard. However, the combination of Brownlee (figure 11) and Holehan (figure 2) disclose a user interface that includes a roller that is located between a touch pad and the keyboard (see claim 1 above).

Referring to claim 7, Brownlee further discloses that the sensor system includes a light sensor and a light source that emits light which passes through the roller (col. 3, lines 11-42 and figure 2).

Referring to claim 9, Brownlee discloses a user interface for use with a computer, comprising:

- a. an at least partially transparent roller (203, 1110) [col. 3, lines 11-42 and figures 2 and 11];
- b. a light source (215) that emits light which passes through the roller [col. 3, lines 11-42 and figure 2];
- c. a light sensor (223) that receives reflected light [col. 3, lines 11-42 and figure 2];
- d. a rotational motion sensor associated with the roller that senses rotational motion of the roller (col. 3, lines 43-65);

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e. a control system, associated with the light source, light sensor and rotational motion sensor, the control system being operable in a first mode to enable operation of the light source, light sensor and rotation motion sensor (col. 5, line 26-col. 6, line 33, more specifically col. 6, lines 8-33) and operable in a second mode to enable operation of the rotation motion sensor and disable operation of at least one of the light source and at least a portion of the light sensor (col. 5, lines 26-40, more specifically lines 39-40).

Brownlee does not explicitly disclose a touch pad adjacent to the roller. Note that the transparent roller in Brownlee's system is implemented on the lower portion of a keyboard (figure 11). The Examiner notes that touch pads located at the lower portion of a keyboard were exceedingly well known in the art. For example, Holehan discloses a touch pad (236) that is implemented on the lower portion of a keyboard (figure 2), and is used for scrolling purpose (col. 5, lines 12-42).

Brownlee and Holehan are combinable because they are both concerned with user interface systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the keyboard of Brownlee so that it includes the touch pad (scroll bar) of Holehan at the lower portion of the keyboard. The suggestion/motivation for doing so would have been to eliminate the difficulties a user encounters when using a pointing device to reposition the cursor within a document while concurrently using the pointing device to scroll up and down and right and left within the document (Holehan, col. 1, line 45-col. 2, line 19). Therefore, it would have been obvious to combine Brownlee with Holehan to obtain the invention as specified in claim 9. Note that the combination of Brownlee and Holehan provide a

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user interface (keyboard) that includes the transparent roller (1110 in figure 11) of Brownlee adjacent to the touch pad (236 in figure 2) of Holehan.

Referring to claim 11, see the rejection of at least claim 3 above.

Referring to claim 12, see the rejection of at least claim 4 above.

Referring to claim 13, see the rejection of at least claim 5 above.

Referring to claim 16, Brownlee discloses a computer system, comprising:

- a. a user interface including an at least partially transparent roller (col. 3, lines 11-42 and figures 2 and 11);
- b. an image sensor associated with the roller that senses the image of a fingerprint and generates fingerprint image data (col. 3, lines 11-42 and figure 2);
- c. a rotational motion sensor associated with the roller that senses rotational motion of the roller and generates roller motion data (col. 3, lines 43-65);
- d. a control system associated with the image sensor and rotational motion sensor, the control system being operable in a first mode to convert the fingerprint image data and rotational motion data into data representative of the scanned fingerprint (col. 4, lines 15-36), and operable in a second mode to control an operation of the computer system in response to the roller motion data (col. 4, lines 40-56 and col. 7, lines 14-20).

Brownlee does not explicitly disclose a touch pad adjacent to the roller. Note that the transparent roller in Brownlee's system is implemented on the lower portion of a keyboard (figure 11). The Examiner notes that touch pads located at the lower portion of a keyboard were exceedingly well known in the art. For example, Holehan discloses a touch pad (236) that is

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implemented on the lower portion of a keyboard (figure 2), and is used for scrolling purpose (col. 5, lines 12-42).

Brownlee and Holehan are combinable because they are both concerned with user interface systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the keyboard of Brownlee so that it includes the touch pad (scroll bar) of Holehan at the lower portion of the keyboard. The suggestion/motivation for doing so would have been to eliminate the difficulties a user encounters when using a pointing device to reposition the cursor within a document while concurrently using the pointing device to scroll up and down and right and left within the document (Holehan, col. 1, line 45-col. 2, line 19). Therefore, it would have been obvious to combine Brownlee with Holehan to obtain the invention as specified in claim 16. Note that the combination of Brownlee and Holehan provide a user interface (keyboard) that includes the transparent roller (1110 in figure 11) of Brownlee adjacent to the touch pad (236 in figure 2) of Holehan.

Referring to claim 17, Brownlee further discloses that the control system comprises at least one processor (figure 6).

Referring to claim 18, Brownlee further discloses a computer housing in which the processor is located (col. 1, lines 26-44. Note that the laptop computer in line 29 comprises a computer housing).

Referring to claim 19, Brownlee further discloses a display pivotably connected to the computer housing (col. 1, lines 26-44. Note that the laptop computer in line 29 comprises a display pivotably connected to the computer housing).

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Referring to claim 20, Brownlee does not explicitly disclose that the user interface is mounted on the computer housing. However, this feature was exceedingly well known in the art. For example, Holehan discloses a user interface that is mounted on a computer housing (figure 1). Therefore, it would have been obvious to combine Brownlee and Holehan, for the reasons stated above (claim 16).

Referring to claim 22, see the rejection of at least claim 4 above.

Referring to claim 23, see the rejection of at least claim 5 above.

Referring to claim 24, Brownlee further discloses a light source that emits light which passes through the roller and a light sensor that receives light reflected through the roller (figure 2).

Referring to claim 25, Brownlee further discloses that the control system disables at least one of the light source and at least a portion of the light sensor in the second mode (col. 5, lines 39-40).

Referring to claim 26, Brownlee further discloses that the operation of the computer system comprises a scrolling operation (col. 4, lines 40-56).

5. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Brownlee, U.S. Patent No. 6,282,303 ("Brownlee"), Holehan, U.S. Patent No. 6,043,809 ("Holehan"), and Liao et al., U.S. Patent No. 2001/0048429 ("Liao").

Referring to claim 30, Brownlee and Holehan do not explicitly disclose a pair of buttons, wherein the touch pad is located between the buttons and the roller.

Liao discloses a user interface that comprises a pair of buttons (146a, 146b) that are located below a touch pad (page 2, paragraphs 26-27, figures 3 and 4).

Brownlee, Holehan, and Liao are combinable because they are all concerned with user interface systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the touch pad of Brownlee and Holehan so that it includes a pair of buttons below the touch pad, as taught by Liao. The suggestion/motivation for doing so would have been to enhance the flexibility of the user interface system by providing the user with the capability of selecting various configurations selectively to satisfy functional and personal preferences (Liao, page 2, paragraph 12). Therefore, it would have been obvious to combine Brownlee and Holehan with Liao to obtain the invention as specified in claim 30. Note that the combination of Brownlee and Holehan provide a user interface that comprises a roller adjacent to a touch pad, wherein the roller is located above the touch pad (see the discussion of claim 5 above). Liao provides a pair of buttons (146a, 146b) that are located below a touch pad, as noted above. Therefore, the combination of Brownlee, Holehan, and Liao provide a roller that is located above the touch pad, and a pair of buttons that are located below the touch pad. Accordingly, the combination of Brownlee, Holehan, and Liao disclose a user interface that comprises a pair of buttons, wherein the touch pad is located between the buttons and the roller.

Referring to claim 31, see the rejection of at least claim 30 above.

Conclusion

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6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ck

February 11, 2005


Jon Chang
Primary Examiner